

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for generating a stream of N symbols by puncturing a stream of repeated symbols in a system including an encoder for generating a stream of L symbols, a repeater for repeating the stream of L symbols, and a puncturer for puncturing the stream of repeated symbols and generating a stream of N symbols, where N is larger than L , the method comprising the steps of:

generating a stream of LM repeated symbols by repeating the stream of L symbols M times, where M is an minimum integer larger than N/L ;

calculating a first puncturing interval $D1$ defined as a minimum integer larger than LM/P for an integer P that is equal to $LM-N$ ~~a number, $P=LM-N$~~ , of symbols to be punctured, and a first symbol puncturing number $P1$ defined as a maximum integer smaller than $LM/D1$;

calculating a second symbol puncturing number $P2$ indicating a difference between the number P of the symbols to be punctured and the first symbol puncturing number $P1$, and a second puncturing interval $D2$ defined as $sD1$ for a selected one integer s out of integers smaller than or equal to a maximum integer smaller than $P1/P2$; and

generating a stream of N symbols by puncturing the stream of LM repeated symbols at the first puncturing interval $D1$ and the second puncturing interval $D2$.

2. (Original) The method as claimed in claim 1, wherein positions of the symbols punctured at the first puncturing interval $D1$ are inconsistent with positions of the symbols punctured at the second puncturing interval $D2$.

3. (Original) The method as claimed in claim 1, wherein the symbols punctured at the first puncturing interval $D1$ are equivalent to symbols located at the positions corresponding to a multiple of $D1$ from initial symbols in the stream of LM repeated symbols.

4. (Original) The method as claimed in claim 1, wherein the symbols punctured at the second puncturing interval $D2$ are equivalent to symbols located at the positions corresponding to a multiple of $D2$ plus an offset from initial symbols in the stream of LM repeated symbols.

5. (Original) The method as claimed in claim 4, wherein the offset is 1.
6. (Original) The method as claimed in claim 4, wherein the offset is -1.
7. (Original) The method as claimed in claim 4, wherein the offset is equivalent to a value determined by subtracting $D2$ from a maximum integer smaller than $D1/2$.
8. (Original) The method as claimed in claim 4, wherein the offset is equivalent to a value determined by multiplying -1 by a value obtained by adding $D2$ to a maximum integer smaller than $D1/2$.
9. (Currently Amended) An apparatus for matching L coded symbols determined according to a variation of a data rate to an interleaver size N , wherein N is larger than L , the apparatus comprising:
 - an encoder for generating a stream of L coded symbols;
 - a repeater for repeating the stream of L coded symbols M times and outputting a stream of LM repeated symbols, wherein M is defined as a minimum integer larger than N/L ;
 - a puncturing pattern generator for (a) determining a first puncturing interval $D1$ defined as a minimum integer larger than LM/P for an integer P that is equal to $LM-N$ ~~a number, $P=LM-N$~~ , of symbols to be punctured, and a first symbol puncturing number $P1$ defined as a maximum integer smaller than $LM/D1$;
 - (b) calculating a second symbol puncturing number $P2$ indicating a difference between the number P of the symbols to be punctured and the first symbol puncturing number $P1$, and a second puncturing interval $D2$ defined as $sD1$ for a selected one integer s out of integers smaller than or equal to a maximum integer smaller than $P1/P2$;
 - (c) generating a puncturing pattern used for puncturing the stream of LM repeated symbols at the first puncturing interval $D1$ and the second puncturing interval $D2$; and

a puncturer for puncturing the stream of LM repeated symbols according to the puncturing pattern at the first puncturing interval D1 and the second puncturing interval D2, and generating a stream of N symbols.

10. (Original) The apparatus as claimed in claim 9, further comprising a symbol index generator for generating indexes indicating respective symbols constituting the stream of LM symbols, and providing the generated indexes to the puncturing pattern generator, wherein the puncturing pattern generator generates the puncturing pattern indicating symbols corresponding to the first and second puncturing intervals D1 and D2 out of the symbols in the stream of LM symbols.

11. (Original) The apparatus as claimed in claim 9, further comprising an interleaver for interleaving an output of the puncturer before transmission.

12. (Original) The apparatus as claimed in claim 9, wherein positions of the symbols punctured at the first puncturing interval D1 are inconsistent with positions of the symbols punctured at the second puncturing interval D2.

13. (Original) The apparatus as claimed in claim 9, wherein the symbols punctured at the first puncturing interval D1 are equivalent to symbols located at the positions corresponding to a multiple of D1 from initial symbols in the stream of LM repeated symbols.

14. (Original) The apparatus as claimed in claim 9, wherein the symbols punctured at the second puncturing interval D2 are equivalent to symbols located at the positions corresponding to a multiple of D2 plus an offset from initial symbols in the stream of LM repeated symbols.

15. (Original) The apparatus as claimed in claim 14, wherein the offset is 1.

16. (Original) The apparatus as claimed in claim 14, wherein the offset is -1.

17. (Original) The apparatus as claimed in claim 14, wherein the offset is equivalent to a value determined by subtracting $D2$ from a maximum integer smaller than $D1/2$.

18. (Original) The apparatus as claimed in claim 14, wherein the offset is equivalent to a value determined by multiplying -1 by a value obtained by adding $D2$ to a maximum integer smaller than $D1/2$.

19. (Currently Amended) A method for matching L coded symbols determined according to a variation of a data rate to an interleaver size N , wherein N is larger than L , the method comprising the steps of:

repeating a stream of L coded symbols M times and outputting a stream of LM repeated symbols, wherein M is defined as a minimum integer larger than N/L ;

puncturing the stream of LM repeated symbols by a first symbol puncturing number $P1$ according to a first puncturing pattern A , wherein $P1$ is defined as a maximum integer smaller than $LM/D1$, wherein the first puncturing pattern A indicates a multiple of a first puncturing interval $D1$ defined as a minimum integer larger than LM/P for an integer P that is equal to $LM-N$ ~~a number, $P=LM-N$~~ , of symbols to be punctured; and

puncturing remaining symbols after puncturing of the stream of LM symbols at the first puncturing interval $D1$, according to a second puncturing pattern B and outputting a stream of N symbols, when the second symbol puncturing number $P2$ indicating a difference between the number P of the symbols to be punctured and the first symbol puncturing number $P1$ is larger than 0 , wherein the second puncturing pattern B is equivalent to a value determined by adding an offset to a multiple of the second puncturing interval $D2$ which is defined as $sD1$ for a selected one integer s out of integers smaller than or equal to a maximum integer smaller than $P1/P2$.

20. (Original) The method as claimed in claim 19, wherein symbol positions determined by the first puncturing pattern A are inconsistent with symbol positions determined by the second puncturing pattern B .

21. (Original) The method as claimed in claim 19, wherein the offset is 1 .

22. (Original) The method as claimed in claim 19, wherein the offset is -1.

23. (Original) The method as claimed in claim 19, wherein the offset is equivalent to a value determined by subtracting D2 from a maximum integer smaller than $D1/2$.

24. (Currently Amended) The method as claimed in claim 19 ~~17~~, wherein the offset is equivalent to a value determined by multiplying -1 by a value obtained by adding D2 to a maximum integer smaller than $D1/2$.